



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,425	01/22/2004	Jianbo Lu	203-0114 (FGT 1775 PA)	4902
28549	7590	10/05/2006	EXAMINER	
ARTZ & ARTZ, P.C. 28333 TELEGRAPH ROAD, SUITE 250 SOUTHFIELD, MI 48034			NGUYEN, TAN QUANG	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

10/762425

EXAMINER

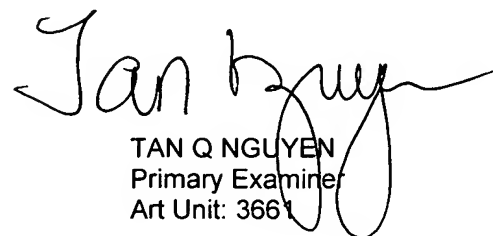
ART UNIT	PAPER
----------	-------

20060930

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner for Patents


TAN Q. NGUYEN
Primary Examiner
Art Unit: 3661

Office Action Summary	Application No.	Applicant(s)	
	10/762,425	LU ET AL.	
	Examiner	Art Unit	
	TAN Q. NGUYEN	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 5-12 and 23-26 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 13-19 is/are rejected.
- 7) ☒ Claim(s) 20-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAIL ACTION

Notice to Applicant(s)

1. This office action is responsive to the Response to Restriction filed on August 02, 2006. Applicant selected Group I, claims 1-4 and 13-22 without traverse. Thus, claims 5-12 and 23-26 have been withdrawn as to non-elected claims.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
3. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. As per claim 14, the phrase "said estimate of vehicle operation states and said prediction of vehicle operation state" has no antecedent basis. Correction is requested.
5. As per claim 18, the terms "wsa, rca, lgaa or vhaa" are vague. Correction is required.
6. The following rejections are based on the examiner's best interpretation of the claims in light of the 35 U.S.C. 112 errors noted above.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent,

except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 13-17 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kirkland et al. (6,876,926).
9. As per claims 13 and 19, Kirkland et al. disclose the invention as claimed which includes an inertial measurement unit sensor cluster comprises at least three angular rate sensors and at least three linear acceleration sensors for generating vehicle dynamic signals (see figure 2, items 104-114), and a controller having a plurality of processing units for generating a vehicle frame signal as function of the vehicle dynamic signals (see at least figure 2, item 102).
10. As per claims 14 and 17, Kirkland et al. disclose the output of at least the vehicle directional velocities (see at least figures 3 and 5).
11. As per claims 15, Kirkland et al. also disclose the sensor plausibility check (see at least column 4, lines 48-53).
12. As per claim 16, Kirkland et al. disclose the step of monitoring the status of the vehicle in motion (see at least figure 5).
13. Claims 18 and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
14. Claims 1-4 are allowed. None of the prior arts of record disclose a vehicle control system which includes at least a sensor cluster for generating a plurality of signals, an integrated controller comprising a sensor signal compensation unit and a kinematics unit, where in the sensor signal compensation unit receiving at least one of the plurality of signals and compensating for an offset within at least one of the plurality

of signals and generating a compensated signal as a function thereof, the controller generating a kinematics signal comprising a sensor frame with respect to an intermediate axis system as a function of the compensated signal, wherein the integrated controller generating a vehicle frame signal as a function of the kinematics signal, a dynamic system controller receiving the vehicle frame signal and generating a dynamic control signal in response thereto, and a safety device controller receiving the dynamic control signal and further generating a safety device signal in response thereto (claim 1).

Conclusion

15. Claims 13-19 are rejected. Claims 20-22 are objected. Claims 1-4 are allowable.

16. The following references are cited as being of general interest: Begin (2002/0022924) and Levine et al. (20030135327).

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Tan Q. Nguyen, whose telephone number is (571) 272-6966. The examiner can normally be reached on Monday-Thursday from 5:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black, can be reached on (571) 272-6956.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

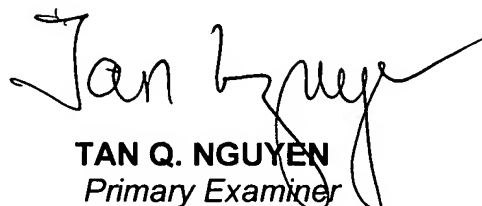
or faxed to the Official Fax Center: (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 3661

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/tqn
September 30, 2006


TAN Q. NGUYEN
Primary Examiner
Art Unit 3661